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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/525,090	03/14/2000	Walid Ahmed	12-12-11-9-26	9116
22046	7590	02/08/2005	EXAMINER	
LUCENT TECHNOLOGIES INC. DOCKET ADMINISTRATOR 101 CRAWFORDS CORNER ROAD - ROOM 3J-219 HOLMDEL, NJ 07733			PHAM, BRENDA H	
			ART UNIT	PAPER NUMBER
			2664	

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/525,090

Applicant(s)AHMED ET AL. **Examiner**

Brenda Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12, 13 and 15 is/are rejected.
- 7) ☐ Claim(s) 14, 17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 12-18 are pending.
2. The indicated allowability of claims 1 and 15 is withdrawn in view of the newly discovered reference(s) to LOGAN et al (US 5,968,121). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 12, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rahul Jain, Anuj Puri and Raja Sengupta Department of EECS, University of California, Berkeley, "Geographical Routing Using Partial Information for Wireless Ad Hoc Networks", herein after referred to as Rahul Jain, in view of Logan et al (US 5,968,121).

Claims 12 and 15, Rahul Jain discloses a method for use in a node of a network comprising: storing location information of other nodes of the network, wherein said location information comprises a global position represented by at least two coordinates, exchanging the stored location information with adjacent nodes of the network (see abstract, "the routing table at a node S is a list $\{(P_i, S_i)\}$ where P_i is a geographical position and S_i is a neighbor of node S. When node S receives a packet

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for node D at position pos (D), it finds the P_i in its routing table which is closest to pos (D) and forwards the packet to the neighbor S_i "

Rahul Jain does not teach a global positioning system receiver for determining location information of node. This claimed limitation is well known in the art and is admitted by Applicant on page 5 of the specification {It is assumed that each node further comprises global positioning system (GPS) equipment (not shown in FIG. 1), as known in the art, for determining its own location (in two dimensions) on the globe}

Therefore, it would have been obvious to those having ordinary skill in the art at the time of the invention was made to implement a global positioning system (GPS) equipment in Rahul Jain for determining its own location.

Rahul Jain further fails to teach wherein said node stores a local topology and said stores said location information of other nodes within and outside said local topology.

Logan et al, in the same field of endeavor, teach this limitation (see figure 2).

{Logan et al teach the topological description of the network is provided in site objects. Site objects help to overcome a number of the troubling problems faced in performing various directory service operations associated with resources within a domain, including locating resources available at, or replicated across, a number of communicatively remote location.}

Therefore, it would have been obvious to those having ordinary skill in the art at the time of the invention was made to implement node stores a local topology and location information of other nodes within and outside local topology.

Claim 13, as explained in the rejection statement of claim 12 (parent claim). Rahul Jain in view of Logan et al teaches all the claims limitation in claim 12. Although Rahul Jain in view of Logan et al does not teach wherein said node uses a geometry-based routing protocol to transmit said location information to nodes outside of said local topology, it is well known in the art that in an ad-hoc mobile network, a geometry-based routing protocol (GRP) is used to route traffic from a source node to a destination node. In the GRP, each node maintains a location list, which comprises location information for a number of nodes of the ad-hoc mobile network. Periodically, each node transmits to its direct neighbors its location and its location list. Each node that receives a location list from an adjacent node merges the received location list into its own location list such that location information for existing nodes.

Therefore, it would have been obvious to those having ordinary skill in the art at the time of the invention was made to implement node in Rahul Jain using a geometry-based routing protocol.

Allowable Subject Matter

5. Claim 14 and 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: the prior art made of record does not teach wherein said node determines a distance from a destination node outside of said local topology to nodes in said local

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topology using said geometry-based routing protocol and said location information to identity the closest node in said local topology for routing to said destination node.

The prior art fails to teach or fairly suggests in combination said local topology of said node being nodes located within a predetermined number of hops from said node.

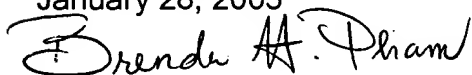
Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda Pham whose telephone number is (571) 272-3135. The examiner can normally be reached on Monday-Friday from 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

Brenda Pham
January 28, 2005

A handwritten signature in black ink that reads "Brenda A. Pham". The signature is written in a cursive style with a large, stylized "B" and "P".